

## **SECTION 16960 ELECTRICAL TESTING**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawing and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

#### **1.2 SUMMARY**

- A. This Section includes the following:
  - 1. Basic electrical testing requirements necessary for acceptance of electrical equipment and installations.

#### **1.3 PERFORMANCE REQUIREMENTS**

- A. Acceptance of electrical equipment and cables covered by test procedures is contingent upon proper execution of required tests and acceptable test results. Submit required number of test results to the Construction Manager (CM) for distribution. Original test reports are retained by CM.
- B. Acceptance of electrical equipment is dependent upon equipment satisfactorily performing its intended function as determined by CM.
- C. CM may, at his/her discretion, prepare and issue an acceptance report for any accepted piece of equipment or system. Original copy is retained in CM's file.

#### **1.4 SUBMITTALS**

- A. Field test reports indicating and interpreting test results relative to compliance with specified requirements.

### **PART 2 - PRODUCTS**

Not used.

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

- A. Perform and supervise tests unless otherwise noted. Furnish test equipment required for tests performed. Provide safety measures required for each test.
- B. Schedule testing with CM; perform no testing without CM's approval.
- C. Notify involved parties prior to test advising them of test to be performed and scheduled date and time.
- D. Give manufacturers sufficient notice to allow necessary arrangements to be made and to have their engineer or representative present at tests where their presence is required. Where the manufacturer's responsibility includes both electrical and mechanical performance, coordinate tests with others involved.

- E. For test instruments to be acceptable for use, they must bear a label documenting the fact that equipment has been calibrated during previous 12 months. Label must show instrument serial number, date of calibration, and name of firm or laboratory performing calibration.
- F. CM will examine test equipment prior to use and may, at his/her discretion, require equipment be submitted to CM for calibration check. Equipment that fails to be within acceptable limits must be submitted to an approved testing laboratory for proper calibration. After equipment is returned from testing laboratory, submit evidence of proper calibration to CM.

### 3.2 TEST REPORTS

- A. CM will ascertain that all tests specified are performed or waived. Test reports or waivers are retained in CM file.
- B. Prepare test reports utilizing the "Electrical Test Report" Form (Attachment A) unless alternate forms are approved by CM or required by specific test procedures.
  - 1. Complete test report upon completion of each test or series of similar tests.
  - 2. Correct insulation-resistance readings to 20 deg. C for final test results.

**ATTACHMENT A**  
**ELECTRICAL TEST REPORT**

THIS TEST REPORT IS TO BE USED FOR POWER CABLE, GROUND GRIDS, ETC., AND ELECTRICAL EQUIPMENT, SUCH AS TRANSFORMERS, SWITCHGEAR, AND MOTOR CONTROL CENTERS.

JOB TITLE \_\_\_\_\_ TEST REPORT NO. \_\_\_\_\_

W. O. \_\_\_\_\_ BLDG. \_\_\_\_\_ PLANT \_\_\_\_\_ DATE \_\_\_\_\_

WEATHER CONDITIONS \_\_\_\_\_ SOIL CONDITIONS \_\_\_\_\_

EQUIPMENT, DESCRIPTION, LOCATION, AND NAMEPLATE DATA \_\_\_\_\_

\_\_\_\_\_

SPECIFIC TYPE OF TEST \_\_\_\_\_

SECTION OF SPECIFICATION DEFINING TEST \_\_\_\_\_ PAGE \_\_\_\_\_

ACCEPTABLE VALUE: MIN. \_\_\_\_\_ MAX. \_\_\_\_\_

TEST INSTRUMENT  
MODEL NO. \_\_\_\_\_ CALIBRATION DATE \_\_\_\_\_

TEST PERFORMED BY \_\_\_\_\_ COMPANY \_\_\_\_\_

TEST SUPERVISED BY \_\_\_\_\_ COMPANY \_\_\_\_\_

TEST WITNESSED BY \_\_\_\_\_ COMPANY \_\_\_\_\_

CONSTRUCTION MANAGER \_\_\_\_\_ \*

- SIGNATURE OF CONSTRUCTION ENGINEER OR CONTRACTING OFFICER VERIFIES THAT TEST RESULTS MEET OR EXCEED REQUIREMENTS OF SPECIFICATION.

**END OF SECTION 16960**